

Claims:

1. A method of reducing wear in a cutting head of a tunnel boring machine, by means of the addition at the cutting head of a foamed aqueous liquid composition, which comprises a
5 foaming agent and a lubricant, the lubricant being selected from the group consisting of high molecular weight polyethylene oxides and bentonite.
2. A method according to claim 1, in which the individual ingredients of the foaming composition are metered in individual aqueous form into water and are converted to
10 foam.
3. A method according to claim 1 or claim 2, in which the foaming agent is selected from anionic and nonionic surfactants.
- 15 4. A method according to claim 1, in which the composition is supplied as a concentrate, which is diluted with water in situ, to provide the foaming composition.
5. A wear-reducing foamable liquid concentrate, consisting of at least one lubricant selected from high molecular weight polyethylene oxide and bentonite and at least one
20 foaming agent which gives rise to short-lived foams, optionally also containing at least one sequestering agent and at least one foam booster, the quantities present being respectively:

(a) in the case of polyethylene oxide as lubricant:
25 0.1-3% polyethylene oxide;
2-40% foaming agent;
up to 5% sequestering agent; and
up to 1% foam booster;
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and (b) in the case of bentonite as the lubricant:

2-30% bentonite; and
2-40% foaming agent;

5 by weight of liquid composition, the remainder being water.

6. A wear-reducing foamed liquid consisting of a concentrate according to claim 8 diluted in from 1-20 volumes of water and foamed to give a volume expansion of from 5 – 40 times.

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